

What Is Claimed Is:

1. A microstructured sensor, having at least:  
one measurement chip (2) in which there is formed a first measurement area (6) having a first measurement structure (9, 10, 12, 14) and at least one second measurement area (7) having a second measurement structure (9, 10, 12, 14), the measurement areas (6, 7) being offset to one another in a lateral direction (Y),  
one cap chip (4) that is fastened in vacuum-tight fashion to the measurement chip (2) in a connecting area (3),  
one intermediate space (5), formed between the measurement chip (2) and the cap chip (4), that is sealed outwardly by the connecting area (3) and in which the measurement areas (6, 7) are situated, and  
at least one contact area (20, 22, 30, 31; 29), formed on the measurement chip (2), and left exposed by the cap chip (4), for the contacting of the measurement chip (2).
2. The microstructured sensor as recited in Claim 1, wherein it has a contact area (29) formed on the measurement chip (2) and left exposed by the cap chip (4), for the contacting of the measurement chip (2).
3. The microstructured sensor as recited in Claim 1, wherein it has at least two contact areas (20, 22, 30, 31; 29) on the measurement chip (2), formed on different sides of the measurement chip (2) and left exposed by the cap chip (4), for the contacting of the measurement chip (2).
4. The microstructured sensor as recited in one of the preceding claims, wherein it is a gas sensor for measuring a gas concentration,  
the first measurement area (6) is provided for the

detection of incident infrared radiation (S) in a first wavelength range,  
the second measurement area (7) is provided for the measurement of infrared radiation (S) in a second wavelength range, and  
the cap chip (4) is transparent to the infrared radiation (S) that is to be measured.

5. The microstructured sensor as recited in Claim 4, wherein the measurement structures (9, 10, 12, 14) each have a membrane (10) undercut with a cavity (9), a thermopile structure (12) formed on the membrane (10), and an absorber layer (14) applied on the thermopile structure (12).
6. The microstructured sensor as recited in one of Claims 1 to 3, wherein it is an acceleration sensor (1) and the measurement areas (6, 7) are formed for the measurement of an identical acceleration in a first measurement and a second measurement acting as a reference.
7. The microstructured sensor as recited in one of Claims 3 to 6, wherein the measurement areas (6, 7) and the contact areas (20, 22) are essentially offset to one another by 180° in relation to a point of symmetry (P) of the measurement chip (2).
8. The microstructured sensor as recited in one of Claims 3 to 7, wherein the contact areas (20, 22) are formed on sides situated opposite one another in a longitudinal direction (X), and are situated so as to be offset to one another in the lateral direction (Y).

9. The microstructured sensor as recited in one of Claims 3 to 7,  
wherein the contact areas (20, 22) are formed on the sides of the measurement chip (2) situated opposite one another in the lateral direction.
10. The microstructured sensor as recited in one of Claims 3 to 7,  
wherein the measurement areas (6, 7) are situated adjacent to one another in the lateral direction (Y), and at least one contact area (20, 22, 30, 32) is formed on each of the four sides of the measurement chip (2).
11. The microstructured sensor as recited in one of the preceding claims,  
wherein between the measurement areas (6, 7) there is formed a wafer bond support point (24, 26) in which the cap chip (4) is fastened on the measurement chip (2).
12. The microstructured sensor as recited in Claim 11,  
wherein the wafer bond support point (26) is interrupted.
13. The microstructured sensor as recited in one of the preceding claims,  
wherein the cap chip (4) covers the measurement chip (2) essentially completely except for the contact areas (20, 22, 30, 32; 29).
14. The microstructured sensor as recited in one of the preceding claims,  
wherein in corner areas of the measurement chip (2) adjacent to the contact areas (20, 22, 30, 32), auxiliary structures (25) are formed in the connecting area (3) .
15. A method for manufacturing a microstructured sensor,  
having at least the following steps:  
structuring of first and second measurement areas (6, 7)

and of at least one contact area (20, 22, 30, 32; 29) in a measurement wafer,  
structuring of a cap wafer through etching of recesses (11) on its lower side and open spaces for contact areas (20, 22, 30, 32),  
binding of the cap wafer on the measurement wafer through a wafer bonding method, so as to form vacuum-tight connecting areas (3) each of which surrounds an intermediate space (5) between a recess (11) of the cap wafer having two measurement areas (6, 7),  
separation of the microstructured sensors (1) by sawing the wafer stack made up of the measurement wafer and the cap wafer in such a way that each microstructured sensor (1) has at least one intermediate space (5), having two measurement areas (6, 7), surrounded by a connecting area (3).

16. The method as recited in Claim 15,  
wherein in the wafer bonding method, sealing glass connections are formed in the connecting areas (3).
17. A sensor module, having  
a microstructured sensor (1) as recited in one of Claims 1 to 14,  
a lead frame (40, 39), and  
a housing (42) that surrounds a part of the lead frame (40, 39) and the microstructured sensor (1),  
wire bonds (36) running from the at least one contact area (20, 22, 30, 32; 29) of the measurement chip (2) of the microstructured sensor (1) in various directions to the lead frame (39, 40).
18. The sensor module as recited in Claim 17,  
wherein the microstructured sensor (1) is fastened and

contacted on an evaluation chip (34) that is contacted to the lead frame (39, 40).